

DETAILED ACTION

This final office action is prepared in response to the applicant's amendments and arguments filed on August 24, 2009 as a reply to the non-final office action mailed on April 24, 2009.

Claims 3, 26-34 have been cancelled;

Claims 1-2, 8-11, 18 and 25 have been amended;

Claims 35-40 are newly added;

Claims 1-2, 4-25 and 35-40 are now pending;

Response to Arguments

Applicant's arguments and amendments filed on August 24, 2009 have been carefully considered but deemed unpersuasive in view of the following new grounds of rejection as explained herein below, necessitated by Applicant's substantial amendments to the claims which significantly affected the scope thereof, and will require further search and consideration.

Accordingly, THIS ACTION IS MADE FINAL. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

1. The objection to claim 8 is withdrawn in view of the claim amendments that correct the problem.
2. New grounds of rejection are introduced for claims that are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-2, 4-7, 9-14, 16-21 and 23-25** are rejected under 35 U.S.C. 103(a) as being obvious over Patterson (U.S. Patent No. 7,093,005), in view of the web article “Java Server Startup” authored by Sommerer and published by BEA systems in 2000 (hereinafter “Sommerer”).

Regarding claim 1, Patterson disclosed a computer based interactive tool for configuring a domain (Fig. 1D and col. 9, lines 33-35, “a graphical user interface editor server 128” and “an administration/management server 130”), comprising:

A computer including a processor and a memory (Patterson, Fig. 1E, “customer control center”) and an interface (Patterson, Fig. 3A and col. 11, line 9, “a graphical user interface tool (editor)”) for communicating with a plurality of servers, wherein each of the servers are capable of providing services as part of a domain (Patterson, col. 9, lines 54-67 disclosed that servers in a data center may be assigned different roles such as Web server or database server to provide services as part of the data center (i.e. domain));

a plurality of domain templates used to create domains, wherein each of the domain templates is stored as an archive file on the computer (Patterson, col. 14, lines 39-41, “For building an Instant Data Center, Visual Editor 216 enables the user to select a design from one of

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a plurality of templates" here a template is the same as the data center DNA disclosed in col. 9, line 54), and wherein each of the domain templates

is associated with a particular domain (Patterson, col. 9 line 54, "a data center DNA" is associated with a particular data center),

specifies application and service configuration parameters for its particular domain (Patterson, col. 9, lines 54-62 disclosed that "a data center DNA may specify roles of servers in a data center", where "a role may be defined in terms of the hardware, operating system and the associated applications of the server"), and

includes any supporting file information that are required for building or extending its particular domain (Patterson, col. 8 lines 33-36 disclosed that "in the customization phase, ... the user may apply one or more software images to servers in the data center", implying that the data center design must include information about the software images); and

wherein the user interface

receives a script (Patterson, col. 2, line 57, "a textual representation of a data center") which includes a plurality of commands to create or update a specified domain in accordance with a domain template associated with the specified domain (col. 2, lines 59-60, "based on the textual representation, one or more commands are generated"),

parses the script to determine the specified domain (to deploy a data center configuration based on textual representation, Patterson's system must parse the textual representation to determine the specified domain),

Patterson did not explicitly disclose that the domain template includes the actual supporting files, not just information about the supporting files.

However, Sommerer disclosed a Java Archive (JAR) file format for bundling files and auxiliary resources associated with applets and applications into one single file for simple, secure distribution and deployment.

One of ordinary skill in the art would have been motivated to combine Patterson and Sommerer because Patterson disclosed that a data center configuration description includes the logical structure and the applications and parameters (Patterson, col. 9, lines 54-67), while Sommerer provides a way to efficiently and securely bundle the resources required for a data center into a single file such that the deployment can be carried out autonomously.

Therefore, it would have been obvious for one of reasonable skill in the art to incorporate Sommerer's teaching of JAR into Patterson such that the applications and configuration information Patterson's configuration tool uses to configure a data center can be bundled into an archive file for deployment. Deploying a data center configuration using archive file does not conflict with the way Patterson's system works because it serves as an alternative to Patterson's way of distributing applications, and allows Patterson's system to provide more ways of configuration deployment for customers to choose from.

Regarding claim 11, for limitations substantially the same as those found in claim 1, the rationale for rejection to claim 1 applies equally as well to those limitations.

For limitations recited in claim 11 but not in claim 1 (which are listed below), Patterson further disclosed

retrieving the domain template associated with the specified domain, including the application and service configuration parameters and supporting files in the domain template, and automatically executing the plurality of commands together with the domain template, to configure the specified domain (Patterson, col. 8, lines 47-50 and col. 5, lines 5-13).

Claim 18 lists all the same elements of **claim 11**, but in machine readable storage medium form rather than method form. Therefore, the supporting rationale of the rejection to **claim 11** applies equally as well to **claim 18**.

Regarding claim 2, the combination of Patterson and BEA article disclosed the computer based interactive tool of claim 1.

Patterson further disclosed that the first user interface includes an option to select the domain template (Patterson, col. 22, line 45 disclosed that in the first user interface shown in Fig. 3A, "the open function opens a farm into the editor").

Regarding claim 3, the combination of Patterson and BEA article disclosed the computer based interactive tool of claim 1.

Patterson further disclosed that the first user interface tool includes an option to customize the domain template (Patterson, col. 21, lines 47-60 and col. 22, lines 45-55 disclosed how a data center designed can be loaded into the user interface shown in Fig. 3A and be edited).

Regarding claims 4, 12 and 19, the combination of Patterson and BEA article disclosed the subject matter of claims 1, 11 and 18, respectively.

Patterson further disclosed wherein the domain includes an administration server and a set of resources and/or services that can be managed as a unit (Patterson, Fig. 1D and col. 9, lines 36-39 disclosed “an administration/management server 130” comprising farm managers).

Regarding claim 5, the combination of Patterson and BEA article disclosed the computer based interactive tool of claim 1.

Patterson further disclosed wherein the domain template includes a set of configuration parameters (Patterson, col. 19, lines 50-62 disclose that the graphical design of a data center, i.e., the domain template, comprises a set of graphical icons representing various servers, fire walls, and other network elements, and the interconnection of the graphical icons, each of which is associated with a set of parameters).

Regarding claims 6, 13 and 20, the combination of Patterson and BEA article disclosed the subject matter of claims 5, 11 and 18, respectively.

Patterson further disclosed wherein the set of configuration parameters includes at least one of

1) an application (Patterson, col. 9, lines 55-67 disclose that a data center DNA can specify the role and associated applications of a server);

- 2) a server (Patterson, col. 9, lines 55-67 disclose that a data center can be defined in terms of a number of basic building blocks such as web servers and database servers, therefore the configuration parameters include a server);
- 3) information related to configuring a database (Patterson, col. 10, lines 21-24 disclose a two-tier configuration including a Web server tier and a database server tier. The configuration parameters of the database server tier inherently include information related to configuring a database);
- 4) information related to configuring a message service; and
- 5) information related to configuring a cluster (Patterson, col. 10, lines 21-24 disclose a two-tier configuration including a Web server tier and a database server tier; therefore the configuration parameters of a server tier is the information related to configuring a cluster).

Regarding claims 7, 14 and 21, the combination of Patterson and BEA article disclosed the subject matter of claims 1, 11 and 18, respectively.

Patterson did not disclose but Sommerer disclosed a Java Archive (JAR) file format for bundling files and auxiliary resources associated with applets and applications into one single file for simple, secure distribution and deployment.

Applicant is referred to the rejection of claim 1 for the rationale and motivation to combine Patterson and Sommerer.

Regarding claims 9, 16 and 23, the combination of Patterson and BEA article disclosed the subject matter of claims 1, 11 and 18, respectively.

Patterson further disclosed in Fig. 2A-2C and col. 11, section 2.0 “Customer Control Center” that the computer based interactive tool includes

an option to add, change and/or delete a managed server (Patterson, Fig. 3A);
an option to add, change and/or delete the cluster (Patterson, Fig. 3A, Fig. 4A and col. 27, lines 40-48 disclose that the computer based interactive tool includes an option to add, change and/or delete the cluster); and
an option to designate a server as part of the cluster (Patterson, Fig. 4A and col. 27, lines 49-50 disclose that the name of the servers in a tier, i.e., a cluster, is linked to the name of the tier).

Patterson does not expressly that all the options above are realized by the second user interface. Instead, these options are distributed among several Web pages of a graphical editor (Patterson, col. 19, section 3.0 “Graphical Editor”).

However, it would have been obvious to one of ordinary skill to modify Patterson as such that all the options recited in the claim are included in the second user interface, because Patterson had taught about the all the configurable options in its disclosure, and the presentation of information relating to such options in a graphical or command-line user interface is a matter of design choice that does not affect the result of the invention.

Regarding claims 10, 17 and 24, the combination of Patterson and BEA article disclosed the subject matter of claims 1, 16 and 23, respectively.

Patterson further disclosed wherein the cluster includes a set of servers that work together to provide scalability and high availability for an application (Patterson, col. 10, lines 1-33

disclosed “a load balancing function” for a data center that may be realized using a tier of Web servers, application servers and database servers, the result of the load balancing function is to provide scalability and high availability).

Claim 25 lists substantially the same elements of **claim 11**, but in computer readable storage medium form rather than method form. Therefore, the supporting rationale of the rejection to **claim 11** applies equally as well to **claim 25**.

Regarding claim 35, the combination of Patterson and Sommerer disclosed the computer based interactive tool of claim 1.

Patterson further disclosed wherein the user interface further includes an express option that creates a domain based on the domain template and a plurality of default settings (Patterson, col. 9, lines 48-53 disclosed that the logical structure of a data center may be saved as a blueprint for creating any number of other internet data centers (IDC) that have the same logical structure).

Regarding claim 36, the combination of Patterson and Sommerer disclosed the computer based interactive tool of claim 1.

Patterson further disclosed an extension template that is stored as a file on the computer and that defines a plurality of applications (Patterson, col. 8, lines 29-46 disclosed that the logical structure of a data center can be customized by the user and the customized structure can be saved for future reference; Examiner considers the customized logical structure of a data center as being equivalent to the extension template recited in the claim);

wherein the user interface further receives a selection of an existing domain (Patterson, col. 12, lines 26-27, "a user selects a farm by clicking on the farm's name." Patterson's farm is equivalent to a domain in the instant application),

receives a selection of the extension template (Patterson, col. 8, lines 33-46 disclosed "Customization of a data center"), and

deploys the plurality of applications in the extension template to the existing domain (Patterson, col. 8, lines 47-50 disclosed the deployment of a data center).

Patterson did not explicitly disclose that the extension template is stored as an archive file.

However, Sommerer disclosed a Java Archive (JAR) file format for bundling files and auxiliary resources associated with applets and applications into one single file for simple, secure distribution and deployment.

The rationale for combining Patterson and Sommerer is the same as that provided above for the rejection of claim 1.

Regarding claims 37 and 39, the combination of Patterson and Sommerer disclosed the subject matter of claims 11 and 18, respectively.

Patterson further disclosed receiving a request for express configuration, wherein the request specifies a domain template; and creating a domain based on the domain template and a plurality of default settings (Patterson, col. 9, lines 48-53 disclosed that the logical structure of a

data center may be saved as a blueprint for creating any number of other internet data centers (IDC) that have the same logical structure).

Regarding claims 38 and 40, the combination of Patterson and Sommerer disclosed the subject matter of claims 11 and 18.

Patterson further disclosed providing an extension template that is stored as a file on the computer and that defines a plurality of applications (Patterson, col. 8, lines 29-46 disclosed that the logical structure of a data center can be customized by the user and the customized structure can be saved for future reference; Examiner considers the customized logical structure of a data center as being equivalent to the extension template recited in the claim);

receiving a selection of an existing domain (Patterson, col. 12, lines 26-27, “a user selects a farm by clicking on the farm’s name.” Patterson’s farm is equivalent to a domain in the instant application);

receiving a selection of the extension template (Patterson, col. 8, lines 33-46 disclosed “Customization of a data center”); and

deploying the plurality of applications in the extension template to the existing domain (Patterson, col. 8, lines 47-50 disclosed the deployment of a data center).

4. **Claims 8, 15 and 22** are rejected under 35 U.S.C. 103(a) as obvious over Patterson and Sommerer as applied to claims 1 and 11, further in view of Aziz et al.(U.S. Patent No. 6,597,956, hereinafter “Aziz”).

Regarding claim 8, the combination of Patterson and Sommerer disclosed the computer based interactive tool of claim 1.

Patterson did not explicitly disclose that a fourth user interface is used to designate and/or configure an administration server.

However, Patterson disclosed in Fig. 1D and column 9, lines 36-39 that an administration server comprises one or more farm managers wherein a farm manager manages one or more virtual server farms. Therefore, Patterson's farm manager is equivalent to the administration server recited in the claim.

Aziz further disclosed that farm managers are allocated by and assigned to one or more virtual farms by the master segment manager to establish configure and maintain virtual server farms (column 14, lines 46-49). Therefore, it is inherent in Aziz that there exists a user interface for designating and/or configuring the farm manager.

It would have been obvious for one of ordinary skill in the art to combine Patterson and Aziz so that the interactive configuration tool comprises a third user interface that is used to designate and/or configure an administration server. One would have been motivated to combine as such because the user interface gives a system administrator more control over the allocation and management of resources in the control plane.

Regarding claims 15 and 22, the combination of Patterson and Sommerer disclosed the method of claim 11.

Patterson did not explicitly disclose that the computer based interactive tool includes an option to designate and/or configure an administration server.

However, Patterson disclosed in Fig. 1D and column 9, lines 36-39 that an administration server comprises one or more farm managers wherein a farm manager manages one or more virtual server farms. Therefore, Patterson's farm manager is equivalent to the administration server recited in the claim.

Aziz further disclosed that farm managers are allocated by and assigned to one or more virtual farms by the master segment manager to establish configure and maintain virtual server farms (column 14, lines 46-49). Therefore, it is inherent in Aziz that there exists a user interface for designating and/or configuring the farm manager.

It would have been obvious for one of ordinary skill in the art to combine Patterson and Aziz so that the interactive configuration tool comprises an option to designate and/or configure an administration server. One would have been motivated to combine as such because such an option gives a system administrator more control over the allocation and management of resources in the control plane.

Conclusion

THIS ACTION IS FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

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1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHIRLEY X. ZHANG whose telephone number is (571)270-5012. The examiner can normally be reached on Monday through Friday 8:00am - 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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